

PHNL031148

PCT/IB2004/051765

8

## CLAIMS:

1. An electric lamp comprising:
  - an outer lamp envelope (1) enclosing a light-transmitting inner lamp vessel (2) in a gastight manner,
  - a light source (3) being arranged in the inner lamp vessel (2),
  - 5 - an optical interference film (4) being provided on at least part of an inner surface of the outer lamp envelope (1) or on at least part of an outer surface of the inner lamp vessel (2),
  - the optical interference film (4) comprising a plurality of alternating high and low refractive index layers,
  - 10 - the material of the high refractive index layer comprising substantially zirconium oxide.
  
2. An electric lamp as claimed in claim 1, characterized in that the ratio of the volume  $V_{ilv}$  of the inner lamp vessel (2) to the volume  $V_{ole}$  outer lamp envelope (1) is:
 
$$15 \quad \frac{V_{ilv}}{V_{ole}} \leq 0.5 .$$
  
3. An electric lamp as claimed in claim 2, characterized in that the ratio of the volume  $V_{ilv}$  of the inner lamp vessel (2) to the volume  $V_{ole}$  outer lamp envelope (1) is:
 
$$20 \quad \frac{V_{ilv}}{V_{ole}} \leq 0.25 .$$
  
4. An electric lamp as claimed in claim 1 or 2, characterized in that the optical interference film (4) is arranged on at least part of the outer surface of the inner lamp vessel (1).
  
- 25 5. An electric lamp as claimed in claim 1 or 2, characterized in that the material of the low refractive index layer comprises substantially silicon oxide.

PHNL031148

PCT/IB2004/051765

9

6. An electric lamp as claimed in claim 1 or 2, characterized in that the optical interference film (4) transmits visible radiation and reflects infrared radiation or the optical interference film (4) changes the color temperature of the electric lamp.
- 5 7. An electric lamp as claimed in claim 1 or 2, characterized in that the light source (3) comprises at least one incandescent lamp body or an arc of a discharge lamp in operation.
8. An electric lamp as claimed in claim 1 or 2, characterized in that the electric  
10 lamp comprises a halogen lamp.